<u>REMARKS</u>

Claims 1-32 are pending and stand rejected. Claims 1, 7, 10, 13, 19, 20, 24, and 29-32 have been amended.

One replacement sheet has been attached to this document, containing FIG. 5. FIG. 5 has been amended as follows: The text in element 546 has been changed from "Strip Tunnel ID" to "Add Tunnel ID". This change corrects a typographical error and does not add new matter.

Applicants respectfully note that the Examiner indicated consideration of the Information Disclosure Statements filed on July 28, 2003 and September 11, 2003, but did not indicate consideration of the Information Disclosure Statement filed on November 10, 2003. Applicants respectfully request that the Examiner indicate consideration of the documents submitted with this Information Disclosure Statement by initialing the PTO-1449 form submitted therewith and attaching same to the next communication to Applicants.

The Examiner did not consider document "CC" in the Information Disclosure Statement that was filed on July 28, 2003, stating that no copy was provided. Applicants assert that a copy was enclosed with the IDS when the IDS was filed. A duplicate copy of document CC is hereby enclosed. Applicants respectfully request that the Examiner indicate consideration of document CC by initialing the previously-submitted PTO-1449 form and attaching same to the next communication to Applicants.

The Examiner and the undersigned attorney held a telephone interview on March 22, 2004. The substance of this interview is set forth herein. The Examiner and the undersigned attorney discussed the rejection of independent claim 1 under 35 U.S.C. § 112, paragraph 2.

Claims 1-32 stand rejected under 35 U.S.C. § 112, paragraph 2, as being indefinite. Applicants respectfully traverse. Claim 1 has been amended to add the limitation "over a tunnel".

Applicants assert that claim 1, previously submitted, was sufficiently definite regarding how the claimed invention routes signals. However, in the interests of advancing the application towards issuance, the amendment has been made to further clarify the claim. Claims 7, 10, 13, 19, 20, and 24 have been amended in a similar manner and for the same reasons. Claims 29-32 have been amended to recite a "computer-readable medium" and to recite "program instructions" instead of "program code." The claims not specifically mentioned above depend from their respective base claims and are definite for at least the same reasons.

Claims 1-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barrera in view of Herzog. Applicants respectfully traverse. As amended, claim 1 recites:

> A system for providing private network services using private addresses in a location remote from private network users, comprising:
>> a host computer executing a plurality of private virtual servers, each private virtual server associated with a private network address space and providing private network services to the private network's users, the private network's users located remotely from the private virtual server, wherein a first private network address space associated with a first virtual server and a second private network address space associated with a second virtual server overlap; and
>> a multiplexing/demultiplexing mechanism executed by the host computer, and communicatively coupled to a network to receive, over a tunnel, a signal from a private network user and to route the received signal to the private virtual server associated with the private network user's network.

In particular, claim 1 includes the claimed elements "wherein a first private network address space associated with a first virtual server and a second private network address space associated with a second virtual server overlap" and "a multiplexing/demultiplexing mechanism ... communicatively coupled to a network to receive, over a tunnel, a signal from a private network user and to route the received signal to the private virtual server associated with the private network user's network."

The claimed invention enables one IP address to be used to refer to multiple services by routing signals with the same destination IP address to different private virtual servers <u>where the signals come from users who are associated with different private networks</u> (and therefore different virtual servers). For example, a signal from a user at customer site 310 can be routed to private server 362A and a signal from a user at customer site 320 can be routed to private server 362B even though the two signals have the same destination IP address (Fig. 3). This is accomplished using "a multiplexing/demultiplexing mechanism ... communicatively coupled to a network to receive, over a tunnel, a signal from a private network user and to route the received signal to the private virtual server associated with the private network user's network." In particular, the claimed invention does not route signals with the same destination IP address to different services unless those signals are from users associated with different private networks.

Applicants agree with the Examiner (Office Action, p. 3) that Barrera does not disclose, suggest, or teach these claimed elements.

Herzog does not remedy this deficiency of Barrera. Herzog discloses a method and apparatus for resolving where to forward DNS requests for a user simultaneously logged in to multiple services existing on a data communications network (abstract). Since the IP address spaces of the services in Herzog overlap, one IP address can be used to refer to multiple services. Herzog briefly mentions that a user may simultaneously log in to a plurality of services with overlapping IP address spaces (1:16-18). However, Herzog does not disclose, suggest, or teach using one IP address to refer to multiple services <u>where the signals come from users associated with different private networks</u>. Thus, Herzog does not disclose, suggest, or teach the claimed elements.

In fact, Herzog teaches away from the claimed invention. In Herzog, one user can access multiple services using one IP address. The claimed invention does not allow such behavior because it would allow a user to access private virtual servers other than the private virtual server associated with the user's private network. Instead, "a signal from a private network user" is routed "to the private virtual server associated with the private network user's network," even though the destination IP address of that signal may exist in address spaces associated with other private virtual servers. Unlike Herzog, where a user can log in to a plurality of services at the same IP address, a user of the claimed invention is able to access only the private virtual server associated with the user's private network.

Since neither reference discloses the claimed elements, it follows that the combination of these references cannot disclose or suggest these features. Accordingly, claim 1 is patentable over Barrera and Herzog, both individually and in combination. Claims 7, 10, 13, 19, 20, 24, 29, and 31 also recite similar features and are also patentable over Barrera and Herzog for the foregoing reasons. For the record, Applicants do not agree with the Examiner that there exists motivation to combine these references.

Applicants respectfully submit that the pending claims are now allowable over the cited art of record and request that the Examiner allow this case. The Examiner is invited to contact the undersigned in order to advance the prosecution of this case.

Respectfully submitted,
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Dated: 7-1 - 04   By: _Sabra-Anne Truesdale_

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